Orientation to ATE Survey 2014

January 22, 2014

Introductions

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Lori Wingate
Corey Smith
Mike Lesiecki

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Advanced Technological Education

www.nsf.gov/ate

Introductions & Housekeeping
ATE Survey Overview
Question Break
ATE Survey Definitions
Question Break
Multitasking your ATE Project Data
External Review of EvaluATE Materials
Final Questions, Closing Remarks, and Survey
Materials

- Slides
- Recording
- ATE Survey 2014 FAQs
- NSF Annual Report Components

Available from evalu-ate.org/events/jan_2014

Objectives

By the end of the webinar, you will

1. Understand how and why the ATE annual survey is conducted.
2. Have a clear understanding of the survey questions and how to answer them.
3. Know how the data you provide for the survey can be used for other purposes.
ATE Survey Overview:
What
What

- Web-based survey of ATE PIs
- Conducted annually since 2000
- Originally part of ATE program evaluation, now serves a monitoring function

ATE Survey ≠ Evaluation

Sections

1. Grant Characteristics and Practices
2. Materials Development
3. Professional Development
4. Program Improvement
5. Special Topics
What

2014 Special Topics questions:

- ATE-funded work at the secondary school level
- Evaluation to assess ATE impacts at the secondary level

ATE Survey Overview:
Why
Why

Provides NSF personnel with

– Data they can use to justify the program to Congress
– A unique perspective on the program, not available through other means
– A means for investigating issues of interest related to the ATE program

Why

Provides ATE project/center personnel with

– Information about how their efforts are situated within the broader program
– Data that can be used for evaluation and benchmarking
Why

Helps tell the story of the ATE program

Check out the blog and book at atecentral.net/ate20/

Why

Helps tell the story

Credentials Awarded to Students Enrolled in Programs with Active ATE Grants 2006-2012

<table>
<thead>
<tr>
<th>Credentials Awarded to Students Enrolled in Programs with Active ATE Grants 2006-2012</th>
<th>High School Diplomas</th>
<th>Associate Degrees and Certificates</th>
<th>Baccalaureate Degrees</th>
</tr>
</thead>
<tbody>
<tr>
<td>22,840</td>
<td>25,920</td>
<td>2,580</td>
<td></td>
</tr>
</tbody>
</table>

Source: EvaluATE
Why

Can’t you just use the information we provided in our NSF annual report?

ATE Survey v. NSF Annual Report

**EvaluATE ATE Survey**
- Tailored to ATE
- Database of quantitative and qualitative data
- Program-level reports

**Research.gov Annual Report**
- For all NSF grantees
- Narrative PDF reports
- Individual project-level reports

Corey will discuss the overlap of information needs later in the webinar.
ATE Survey Reports

Annual “survey fact sheets” (2003-present)
Data snapshots (2009-present)
Briefing papers (2006, 2010)

Evalu-ate.org
> Annual Survey
> Reports

ATE Survey Overview:
Who
Who

- Sent to all ATE PIs, except those for planning grants (N=\~250)

Who

96% of ATE PIs completed the ATE survey in 2013
Who

For concurrent awards:
- *If second grant is a continuation of the first*, complete the survey once, addressing both grants
- If they are distinct projects, complete separate surveys for each award

Who

1. Grant Characteristics and Practices
2. Materials Development
3. Professional Development
4. Program Improvement
5. Special Topics

*Completed by everyone*
Who

1. Grant Characteristics and Practices
2. Materials Development
3. Professional Development
4. Program Improvement
5. Special Topics

Completed by grantees that spent at least 30% of your budget or at least $100,000 on these activities
(New grantees may skip these sections)

ATE Survey Overview:
How
How

Copy-and-paste login information from invitation email

How

Start early, save often

SAVE
Select to view or answer the questions yourself OR to delegate certain sections to someone else.

Select to have someone else complete the entire survey.
Who

Section 1: Grantee Characteristics
Section 2: Materials Development
Section 3: Professional Development
Section 4: Program Improvement
Section 5: Special Topics

ATE Survey Overview:

When

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When

Survey launches

ATE PIs contacted by EvaluATE to verify contact information

Jan 13

Feb 18

Feb 25

Mar 4

Mar 11

Mar 18

Survey closes

1st and 2nd reminders sent by EvaluATE

3rd reminder sent by NSF

Questions & Comments

Introductions & Housekeeping

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ATE Survey Definitions

Question Break

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Final Questions, Closing Remarks, and Survey
Survey Definitions:
- Collaboration
- Materials
- Professional Development
- Students and Programs

ATE Survey Definitions:
Collaboration
Collaboration

“Collaboration is a relationship with another institution, business, or group that provides money or other support to your project or center. Collaborators are not funded by the grant.”

For each type of collaborating organization listed below, report the number of different organizations you collaborated with in 2013.

______ Business/industry
______ Within your host institution
______ Other education institutions
______ Public agencies
______ Other ATE projects/centers
______ Other (specify): ________________
Collaboration

Examples

- Someone serving on an advisory board whose time is compensated by his/her employer
- Donation of time to give presentation/workshop
- Donation of space or materials

- One-time provision of advice
- Paid consulting services
- Use of space or materials regularly available to grant staff

Calculating value of collaboration

A person’s time:

\[
\text{Estimated daily rate} \times \frac{\text{Number of days contributed}}{\text{Value of collaboration}}
\]
Calculating value of collaboration

**Equipment:**
Cost of purchasing comparable equipment = Value of collaboration

ATE Survey Definitions:
Materials
This section of the survey focuses strictly on materials developed for national dissemination to serve instructional purposes.

For all materials you reported above, indicate the number directed at each type of audience.

<table>
<thead>
<tr>
<th>Target Audience</th>
<th>Course</th>
<th>Module</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secondary school</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2-year college</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4-year college</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business/industry training or education program</td>
<td></td>
<td></td>
<td>Stand-alone collection of instructional content and activities to achieve desired educational outcomes</td>
</tr>
</tbody>
</table>
## Materials

For all materials you reported above, indicate the number directed at each type of audience.

<table>
<thead>
<tr>
<th>Target Audience</th>
<th>Type of Material</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Course</td>
</tr>
<tr>
<td>Secondary school</td>
<td></td>
</tr>
<tr>
<td>2-year college</td>
<td></td>
</tr>
<tr>
<td>4-year college</td>
<td></td>
</tr>
<tr>
<td>Business/industry training or education program</td>
<td></td>
</tr>
</tbody>
</table>

An instructional exercise designed to achieve a discrete learning outcome or a test to measure achievement or progress toward that outcome
ATE Survey Definitions:

Professional Development
Professional Development

"Professional development provided to secondary school teachers, college faculty, and preservice teachers to enhance their disciplinary capabilities, teaching skills, vitality, and understanding of current technologies and practices in areas that directly impact technician education."

Professional Development

"Training and support educators to improve their teaching."
Professional Development

Report the number of participants in your 2013 professional development activities that are associated with each education level.

<table>
<thead>
<tr>
<th>Professional Development Activity</th>
<th>Total Number of Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Secondary Level</td>
</tr>
<tr>
<td>Short presentations to raise awareness</td>
<td></td>
</tr>
<tr>
<td>Instructional activities of less than a day</td>
<td></td>
</tr>
<tr>
<td>Instructional activities of at least one day but less than one week</td>
<td></td>
</tr>
<tr>
<td>Instructional activities that last from one to several weeks</td>
<td></td>
</tr>
<tr>
<td>A long-term periodic instructional activity</td>
<td></td>
</tr>
</tbody>
</table>

If possible, capture demographic information at registration or in-person.

EXAMPLES:

- Short presentations to raise awareness: Conference presentation, Poster
- Instructional activities of less than a day: 90-minute webinar, Videos (with no evidence of engagement)
- Instructional activities of at least one day but less than one week: Two-day workshop
- Instructional activities that last from one to several weeks: Multi-week summer institute
- A long-term periodic instructional activity: Coaching, Informal mentoring
ATE Survey Definitions:

Students and Programs

Program Improvement:

“Development or improvement of technician education programs for secondary students, college students, or persons employed in technician positions in business or industry”
Students and Programs

Program:
“A sequence of classes, laboratories, and/or work-based experiences that lead students to a degree, certification, or occupational competency point.”

<table>
<thead>
<tr>
<th>Education Level of Participating Students</th>
<th>Contract Training</th>
</tr>
</thead>
<tbody>
<tr>
<td>Secondary</td>
<td>Associate</td>
</tr>
<tr>
<td>Total number of locations where the ATE-supported programs were offered</td>
<td></td>
</tr>
<tr>
<td>Total number of individual students who took at least 1 course in 1 of your ATE-supported programs (if a student took more than 1 course, count that person only once)</td>
<td></td>
</tr>
</tbody>
</table>
Students and Programs

Students to count: Anyone who enrolled in a course offered through a program that was the focus of an ATE-funded program improvement effort

Example

Wind Energy Technology Certificate

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>CIS 110</td>
<td>PC Operating Systems</td>
</tr>
<tr>
<td>DRFT 105</td>
<td>Blueprint Reading</td>
</tr>
<tr>
<td>DRFT 110</td>
<td>Analytical Apps Tech Careers I</td>
</tr>
<tr>
<td>DRFT 112</td>
<td>Analytical Apps Tech Career II</td>
</tr>
<tr>
<td>ELT 102</td>
<td>Applied Electricity</td>
</tr>
<tr>
<td>ELT 120</td>
<td>Electrical Machines</td>
</tr>
<tr>
<td>ELT 122</td>
<td>Wind Turbine Ops/Maint/Repair</td>
</tr>
<tr>
<td>ELT 126</td>
<td>Power Generation &amp; Dist</td>
</tr>
<tr>
<td>ELT 222</td>
<td>Programmable Control</td>
</tr>
<tr>
<td>ELT 228</td>
<td>Adv Program Control &amp; Data Acq</td>
</tr>
<tr>
<td>HVAC 104</td>
<td>Intro to Renewable Energy</td>
</tr>
<tr>
<td>MSM 110</td>
<td>Safety for Alt Energy Tech</td>
</tr>
<tr>
<td>MSM 120</td>
<td>Basic Fluid Power</td>
</tr>
<tr>
<td>MSM 250</td>
<td>Wind Turbine Mechanical System</td>
</tr>
</tbody>
</table>
### Quiz Time!

**Should these be reported on the ATE Survey?**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Report?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Free use of local university’s simulation lab</td>
<td>✓</td>
</tr>
<tr>
<td>A full-page ad promoting degree program placed in an education-focused periodical</td>
<td></td>
</tr>
<tr>
<td>A workshop on how to write a good NSF proposal</td>
<td></td>
</tr>
<tr>
<td>Students enrolled in an English composition course that is also required for Nano Tech AA degree</td>
<td></td>
</tr>
<tr>
<td>Users of a digital library system</td>
<td></td>
</tr>
</tbody>
</table>

### Questions & Comments

- **Introductions & Housekeeping**
- **ATE Survey Overview**
- **Question Break**
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- **Multitasking your ATE Project Data**
- **External Review of EvaluATE Materials**
- **Final Questions, Closing Remarks, and Survey**
Multitasking Your ATE Project Data

Corey Smith

Can’t you just use the information we provided in our NSF annual report?
Multitasking Your ATE Project Data

Project data is needed for:
- ATE survey
- NSF annual reports
- Project-level evaluation

Documents specific project accomplishments, products, participants, impacts, and challenges

Collects and analyzes data to assess progress and impacts

Collects information about program-wide activities and outputs
Example 1: Collaboration

Collaboration Data

- Partner organizations
- Type of contribution
- Details on contribution

ATE Survey
NSF Annual Reports
Project-Level Evaluation

- Number and type of collaborators
- Nature of benefit of collaboration
- Monetary value of collaboration
Collaboration Data

ATE Annual Survey
- Type of collaborator
- Nature of benefit from the collaboration
- Dollar value of contribution (in kind or financial)

Annual NSF Report
- Type of partner institution
- Partner’s contribution to the project
- More detail on partner’s contribution

Example 2:
Student Gender Data
NSF values the advancement of scientific knowledge and activities that contribute to achievement of societally relevant outcomes. Such outcomes include, but are not limited to: full participation of women, persons with disabilities, and underrepresented minorities in STEM.

―ATE Program Solicitation
Student Gender Data

<table>
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</tr>
<tr>
<td>Associate</td>
<td>Post</td>
</tr>
<tr>
<td>Baccalaureate</td>
<td>Baccalaureate</td>
</tr>
</tbody>
</table>

Female

Male

Women in ATE: 2012

According to the results of the 2013 survey of ATE programs, a little less than one quarter of all students in ATE-supported programs are female. By discipline, the percentage of female students range from 7 to 52 percent.
Example: Using Student Gender Data for Project Evaluation

26% of RCNET’s students are female

21% of all ATE students in energy production are female

15% of ATE students in energy production *not including RCNET’s* are female

1.8% of power plant operators, distributors, dispatchers are female

Data Sources:  

* 2013 ATE Annual Survey  

* U.S. Department of Labor
NSF Annual Reports & ATE Survey: More ways to multitask your data

Multitasking Your ATE Project Data

Corey

**Examples of Relevant Data Points:**
- Number of students enrolled, by education level and demographics
- Number of courses developed/modified with grant funds
- Number and education level of professional development participants
Multitasking Your ATE Project Data

Examples of Relevant Data Points:
- Number of instructional materials published commercially
- Number of instructional materials in use locally, at partner institutions, and elsewhere
- Number of institutions using material(s)

Examples of Relevant Data Points:
- Type of collaborator
- Dollar value of contribution
- Nature of benefit from the collaboration
A New EvaluATE Resource is here to Help

Organized by NSF annual report component
EvaluATE Webinar: Orientation to ATE Survey 2014

Organized by NSF annual report component

Includes verbatim text from Research.gov system. Including:
- Main headings/prompts
- Additional guidance/explanation

Identifies questions on the ATE survey that are related to the report section
We want your feedback!

External Review of EvaluATE Materials

Mike Lesiecki
Questions & Comments

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Right-Sizing Evaluation for ATE Small Grants
March 19, 2014

EvaluATE
Evaluation Resource Center for advanced technological education

Mentor Connect
An invitation from a partner ATE project....

Formative Assessment for ATE (FAS4ATE) project is seeking an ATE PI-Evaluator team to test a logic model development process.

Candidate qualities:
- Projects in the first year of funding
- Eager to collaborate to develop a project logic model and link it to evaluation
- Comfortable with showcasing this work in a webinar

To learn more, contact

**Amy Gullickson:**
amy.gullickson@unimelb.edu.au

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